IN THE CLAIMS:

The following is a complete listing of claims in this application.

1. (original) Anode assembly (1) to be used in a fused bath electrolysis aluminium production cell, comprising:

- at least one inert anode (2) in the shape of a ladle, with length L, comprising a cavity (21), an open end (22) comprising an opening (200), a wall (23) surrounding the cavity (21), a closed end (24) and at least one mechanical connection means (26, 27, 28, 29);

- at least one connection conductor (3, 4, 4', 5) comprising a connection end (42) and at least one mechanical connection (44, 45, 46) capable of cooperating with the mechanical connection means (26, 27, 28, 29) of the anode (2) so as to set up a mechanical link between the conductor and the anode;

- at least one brazed metallic joint (31) or at least one brazing material that could form a brazed metallic joint (31) by brazing wholly or partly during use, the said joint (31) being located between all or part of at least one surface (20, 20', 20") of the open end (22) of the anode (2) and all or part of at least one surface (40, 40', 40") of the connection end (42) of the conductor (3, 4, 4', 5).

2. (original) Anode assembly (1) according to claim 1, characterised in that the mechanical connection means (26, 27, 28, 29) of the anode (2) cover part of the said open end (22) representing less than 10% of the total length L of the anode.

3. (currently amended) Anode assembly (1) according to claim 1 ~~or 2~~, characterised in that the total area of the connection surface(s) (20, 20', 20") is such that the current density per unit area at the nominal intensity during use is between 1 and 50 A/cm^2.

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4. (currently amended) Anode assembly (1) according to ~~any one of claims 1 to 3~~ claim 1, characterised in that the mechanical connection means (44, 45, 46) of the conductor (3, 4, 4', 5) is/are close to the connection end (42).

5. (currently amended) Anode assembly (1) according to ~~any one of claims 1 to 4~~ claim 1, characterised in that the mechanical connection means (26, 27, 28, 29) of the anode (2) comprise at least one element chosen from among the collars (26), annular cavities (27), annular grooves (28) and annular shoulders (29).

6. (currently amended) Anode assembly (1) according to ~~any one of claims 1 to 5~~ claim 1, characterised in that the mechanical connection means (44, 45, 46) of the conductor (3, 4, 4', 5) comprise at least one element chosen from among the annular grooves (44), skirts (45) and annular shoulders (46).

7. (currently amended) Anode assembly (1) according to ~~any one of claims 1 to 6~~ claim 1, characterised in that the mechanical connection means (26, 27, 28, 29, 44, 45, 46) of the conductor and the anode cooperate through at least one of the means chosen among screwing, click fitting, friction, insertion or force fitting.

8. (currently amended) Anode assembly (1) according to ~~any one of claims 1 to 7~~ claim 1, characterised in that it comprises at least one complementary assembly means (34, 340, 36).

9. (original) Anode assembly (1) according to claim 8, characterised in that the complementary assembly means is chosen from among the clamping rings (34, 340) and open or closed rings (36).

10. (currently amended) Anode assembly (1) according to ~~any one of claims 1 to 9~~ claim 1, characterised in that it comprises at least one complementary seal (33) designed to

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confine the brazed joint (31).

11. (original) Anode assembly (1) according to claim 10, characterised in that the complementary seal (33) is chosen from among open or closed rings.

12. (currently amended) Anode assembly (1) according to ~~any one of claims 1 to 11~~ claim 1, characterised in that the strength of the said brazed joint (31) can increase during use of the said assembly in an electrolytic aluminium production cell.

13. (currently amended) Anode assembly (1) according to ~~any one of claims 1 to 12~~ claim 1, characterised in that the said brazed joint (31) includes at least one element chosen from among aluminium, silver, copper, magnesium, manganese, titanium and zinc.

14. (currently amended) Anode assembly (1) according to ~~any one of claims 1 to 13~~ claim 1, characterised in that the connection conductor (3, 4, 4', 5) comprises at least one member (4) made of a nickel based alloy and in that the connection end (42) is located on this member (4).

15. (original) Anode assembly (1) according to claim 14, characterised in that the nickel based alloy is an UNS N06625 alloy or an UNS N06025 alloy.

16. (currently amended) Anode assembly (1) according to ~~any one of claims 1 to 15~~ claim 1, characterised in that the said anode (2) is chosen from among anodes comprising a ceramic material, anodes comprising a metallic material and anodes comprising a cermet material.

17. (currently amended) Anode assembly (1) according to ~~any one of claims 1 to 16~~ claim 1, characterised in that it comprises at least one heating resistance (9) in the cavity (21) of the anode (2).

18. (currently amended) Manufacturing method for an anode

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assembly (1) according to ~~any one of claims 1 to 17~~ claim 1, characterised in that it comprises:

- the supply of at least one inert anode (2) in the form of a ladle, with length L, comprising a cavity (21), an open end (22) comprising an opening (200), a wall (23) surrounding the cavity (21), a closed end (24) and at least one mechanical connection means (26, 27, 28, 29):
- the supply of at least one connection conductor (3, 4, 4', 5) comprising a connection end (42), and at least one mechanical connection means (44, 45, 46) capable of cooperating with the mechanical connection means (26, 27, 28, 29) of the anode (2) so as to set up a mechanical connection between the conductor and the anode;
- the supply of at least one brazing material capable of forming a metallic joint;
- placement of the brazing material(s) at a determined location close to at least one of the surfaces (20, 20', 20") of the open end (22) of the anode (2) or the surfaces (40, 40', 40") of the connection end (42) of the conductor (3, 4, 4', 5) that will be connected by brazing;
- assembly of the conductor (3, 4, 4', 5) and the anode (2) so as to bring the said surfaces (20, 20', 20", 40, 40', 40") close to each other;
- a heat treatment capable of causing the formation of a brazed joint (31) between the conductor and the anode starting from the brazing material(s).

19. (original) Manufacturing method according to claim 18, characterised in that the assembly operation of the conductor (3, 4, 4', 5) and the anode (2) produces a loose assembly.

20. (currently amended) Manufacturing method according to claim 18 ~~or 19~~, characterised in that the composition of the

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brazing material, or one of the brazing materials, may be modified during the heat treatment so as to increase the melting temperature up to a value greater than the maximum temperature applied to the said brazed joint (31) during use.

21. (original) Manufacturing method according to claim 20, characterised in that the composition of the brazing material, or one of the brazing materials, may be modified by evaporation of at least part of one of its constituent elements.

22. (original) Manufacturing method according to claim 21, characterised in that the said constituent element is zinc or magnesium.

23. (currently amended) Manufacturing method according to ~~any one of claims 20 to 22~~ claim 20, characterised in that the composition of the brazing material, or one of the brazing materials, may be modified by chemical reaction of at least part of one of its said constituent elements with one of the constituents of the ambient atmosphere.

24. (original) Manufacturing method according to claim 23, characterised in that the said constituent element is aluminium, zinc, magnesium or phosphorus.

25. (currently amended) Manufacturing method according to ~~any one of claims 20 to 24~~ claim 20, characterised in that the composition of the brazing material, or one of the brazing materials, may be modified by exchange by diffusion, with or without oxidation - reduction reaction, of at least one element with one of the said surfaces (20, 20', 20", 40, 40', 40").

26. (original) Manufacturing method according to claim 25, characterised in that all or part of the said surfaces (20, 20', 20", 40, 40', 40") is coated with a material comprising an element such as nickel, that can diffuse in the

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brazing material.

27. (currently amended) Manufacturing method according to claim 25 ~~or 26~~, characterised in that the said composition contains at least one element that could be exchanged by at least one oxidation - reduction reaction with the said inert anode (2).

28. (original) Manufacturing method according to claim 27, characterised in that the said element is chosen from among magnesium, aluminium, phosphorus, titanium, zirconium, hafnium or zinc.

29. (currently amended) Manufacturing method according to ~~any one of claims 20 to 28~~ claim 20, characterised in that the brazing material is a mixture or an alloy containing at least an element chosen from among copper, silver, manganese and / or zinc.

30. (currently amended) Manufacturing method according to ~~any one of claims 18 to 29~~ claim 18, characterised in that the said placement includes the introduction of at least part of the brazing material(s) between all or part of at least one surface (20, 20', 20") of the open end (22) of the anode (2) and all or part of at least one surface (40, 40', 40") of the connection end (42) of the conductor (3, 4, 4', 5).

31. (currently amended) Manufacturing method according to ~~any one of claims 18 to 30~~ claim 18, characterised in that the conductor (3, 4, 4', 5) includes at least one reservoir (35), in that the said placement includes the introduction of at least one brazing material into at least one reservoir (35) before the heat treatment, in that the conductor (3, 4, 4', 5) and the anode (2) are assembled so as to leave a free space (32, 32') between the conductor and the anode, and in that the brazing material(s) is (are) introduced between all or part of at least one surface (20, 20', 20") of the open end (22) of

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the anode (2) and all or part of at least one surface (40, 40', 40") of the connection end (42) of the conductor (3, 4, 4', 5) by flow of the said material during the heat treatment.

32. (currently amended) Manufacturing method according to ~~any one of claims 18 to 31~~ claim 18, characterised in that the said surfaces (20, 20', 20", 40, 40', 40") may be fully or partly coated with a material that can be wetted by the brazing material(s).

33. (currently amended) Manufacturing method according to ~~any one of claims 18 to 32~~ claim 18, characterised in that the heat treatment is partly or wholly performed while the anode assembly (1) is being used in an electrolytic cell.

34. (currently amended) Manufacturing method according to ~~any one of claims 18 to 33~~ claim 18, characterised in that the surfaces (20) close to the opening (200) of the anode (2) are inclined so as to prevent flow of the brazing material in the cavity (21) during brazing and / or use of the anode assembly.

Claim 35 (canceled).

36. (currently amended) Cell for aluminium production by fused bath electrolysis, comprising at least one anode assembly (1) according to ~~any one of claims 1 to 17 or obtained using the manufacturing method according to any one of claims 18 to 34~~ claim 1.

37. (new) Cell for aluminum production by fused bath electrolysis, comprising at least one anode assembly produced using the method according to claim 18.

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